



## Process Licensing

### UNIPOL® Proprietary Gas Phase Polypropylene Process Technology

#### **SIMPLE TO BUILD, OPERATE AND MAINTAIN**

UNIPOL® PP Process Technology is defined by simplicity.

An all gas-phase technology based on a fluidized bed reactor system, UNIPOL® PP process is designed to have fewer moving parts and less equipment than any competing technology.

The simple, reliable design of UNIPOL® PP process and related product technology, coupled with SHAC® catalyst systems and the new CONSISTA® catalyst systems, offers another significant economic benefit – the ability to operate the plant above nameplate capacity.

The core UNIPOL® PP process facility has the smallest footprint in the industry, about 60 meters by 65 meters. This includes the following operations:

- Purification
- Reaction



- Purging
- Vent Recovery
- Additive Addition
- Pelleting

### **SIMPLE, YET STATE-OF-THE-ART**

UNIPOL® PP process and related product technology is state-of-the-art. At the same time, it is mechanically simple and easy to operate. A minimal amount of major equipment is required. There are only three or four pieces of major rotating equipment depending on your configuration.

A single reactor is used to produce homopolymers and random copolymers. A second reactor in series with the first will allow production of impact copolymers.

The simplicity of the homopolymer/random copolymer systems is also mirrored in the impact copolymer state. It uses the same gas-phase fluidized bed process with a slightly smaller reactor.

### **Related Links**

[Animation of PP Process](#)

[Typical Plant Configuration](#)

**Are you interested in UNIPOL® PP Process Technology?** Please click here to contact us.

### **PROVIDING HYDROCRACKING AND LUBES HYDROPROCESSING CATALYSTS TO CLG LICENSEES**

Advanced Refining Technologies LLC® (ART), in collaboration with Chevron Lummus Global (CLG), is the exclusive provider of CLG's hydrocracking and lubes hydroprocessing catalysts to CLG's licensees and other petroleum refiners for unit refills. Our partnership streamlines hydroprocessing catalyst supply and improves technical service for refining customers.

CLG is a world leader in hydroprocessing technology development and commercialization, with licensing, engineering, and petroleum refining expertise. CLG is a joint venture between a subsidiary of Chevron and CB&I's Lummus Technology group. ART, a joint venture between Grace and Chevron, is a leading supplier of hydroprocessing catalysts, with a portfolio of distillate hydrotreating, fixed bed resid hydrotreating, and ebullated bed resid hydrocracking catalysts.

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